

TOSHIBA Transistor Silicon PNP Epitaxial Type (PCT Process)

HN1A01F

Audio Frequency General Purpose Amplifier Applications

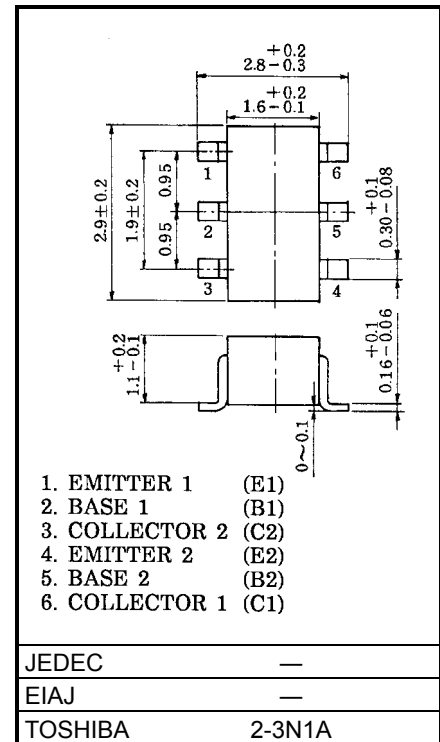
Unit: mm

- Small package (dual type)
- High voltage and high current
: $V_{CEO} = -50V$, $I_C = -150mA$ (max)
- High h_{FE} : $h_{FE} = 120\sim400$
- Excellent h_{FE} linearity
: $h_{FE} (I_C = -0.1mA) / h_{FE} (I_C = -2mA) = 0.95$ (typ.)

Maximum Ratings (Ta = 25°C) (Q1, Q2 Common)

Characteristic	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-50	V
Collector-emitter voltage	V_{CEO}	-50	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current	I_C	-150	mA
Base current	I_B	-30	mA
Collector power dissipation	P_C^*	300	mW
Junction temperature	T_j	125	°C
Storage temperature range	T_{stg}	-55~125	°C

* Total rating



Weight: 0.015g

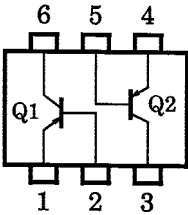
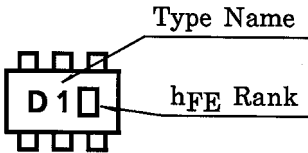
Electrical Characteristics (Ta = 25°C) (Q1,Q2 Common)

Characteristic	Symbol	Test Circuit	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	I_{CBO}	—	$V_{CB} = -50V, I_E = 0$	—	—	-0.1	μA
Emitter cut-off current	I_{EBO}	—	$V_{EB} = -5V, I_C = 0$	—	—	-0.1	μA
DC current gain	h_{FE} (note)	—	$V_{CE} = -6V, I_C = -2mA$	120	—	400	—
Collector-emitter saturation voltage	$V_{CE(sat)}$	—	$I_C = -100mA, I_B = -10mA$	—	-0.1	-0.3	V
Transition frequency	f_T	—	$V_{CE} = -10V, I_C = -1mA$	80	—	—	MHz
Collector output capacitance	C_{ob}	—	$V_{CB} = -10V, I_E = 0, f = 1MHz$	—	4	7	pF

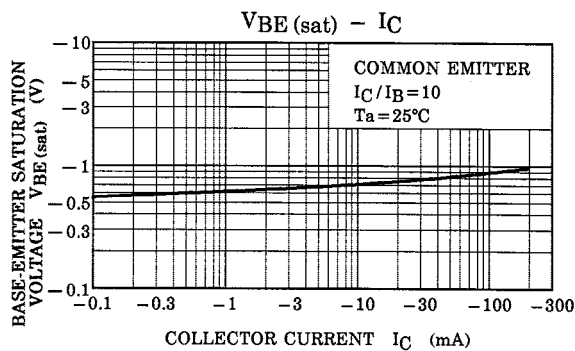
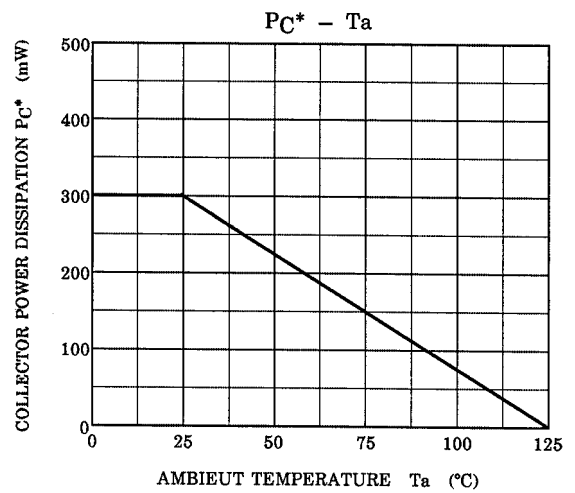
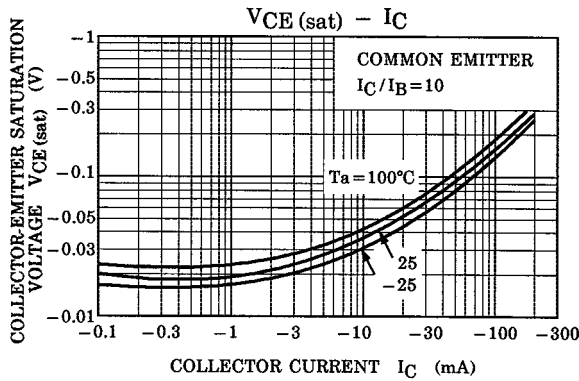
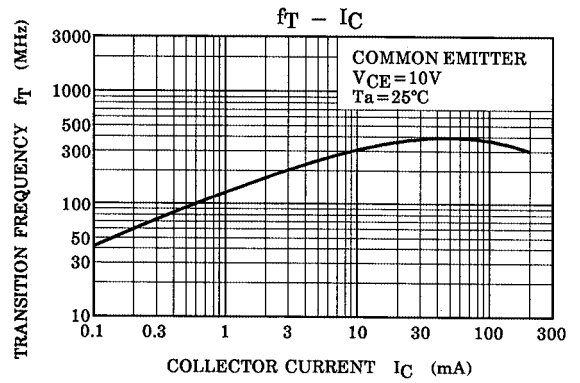
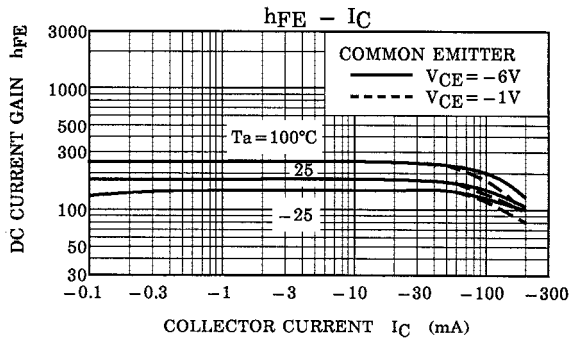
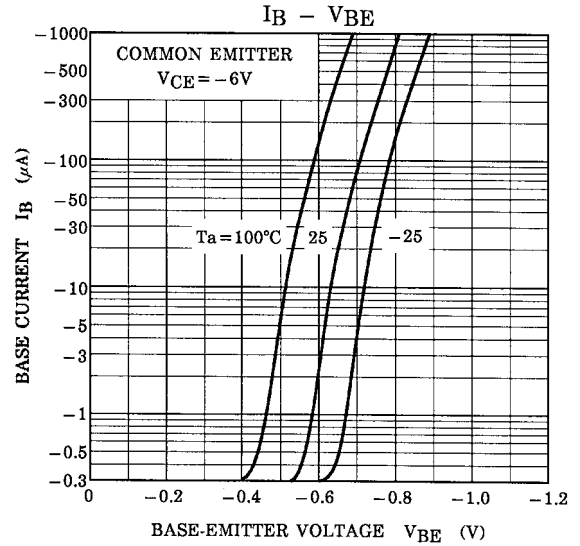
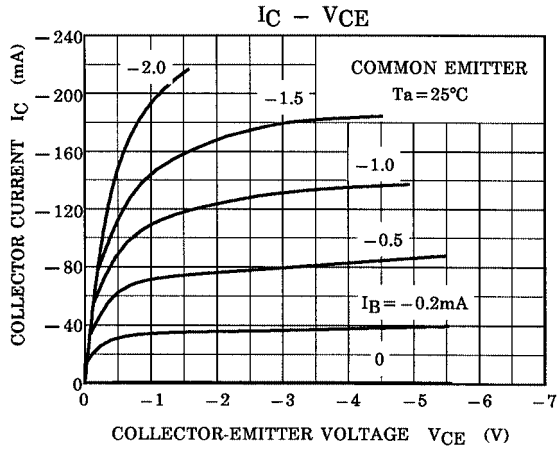
Note: h_{FE} Classification
Y (Y): 120~240, GR (G): 200~400
() Marking Symbol

Marking

Equivalent Circuit (Top View)



(Q1,Q2 Common)



* : Total Rating

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